



## GP2506E~GP2520E GENERAL PURPOSE RECTIFIER

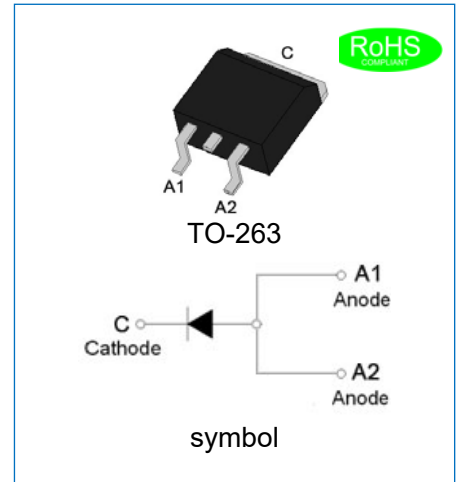
Rev.3.7

### DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Glass passivated chip junction
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

- ✧ Case: TO-263, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 1.514 gram



### ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

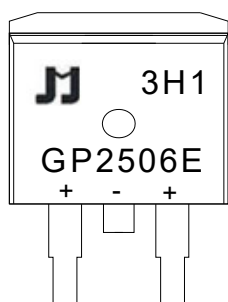
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	GP2506E	GP2508E	GP2510E	GP2512E	GP2516E	GP2520E	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	800	1000	1200	1600	2000	V
Maximum RMS voltage	$V_{RMS}$	420	560	700	840	1120	1400	V
Maximum DC blocking voltage	$V_{DC}$	600	800	1000	1200	1600	2000	V
Average forward current at $T_L=100^\circ\text{C}$	$I_{F(AV)}$	25						A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	350			300			A
Maximum forward voltage @ $I_F=25\text{A}$	$V_F$	1.2						V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	5						$\mu\text{A}$
	$T_j=150^\circ\text{C}$	1						mA
Typical junction capacitance $V_R=4.0\text{V}$ , $f=1\text{MHz}$	$C_J$	150			130			pF
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150						$^\circ\text{C}$

### THERMAL RESISTANCES

Symbol	Parameter	GP2506E	GP2508E	GP2510E	GP2512E	GP2516E	GP2520E	Unit
$R_{th(j-c)}$	Junction to case	4						$^\circ\text{C/W}$

MARKING



G	General Purpose Rectifier
P	Pin
25	$I_{F(AV)}=25A$
06	$V_{RRM}:600V$
E	Package: TO-263

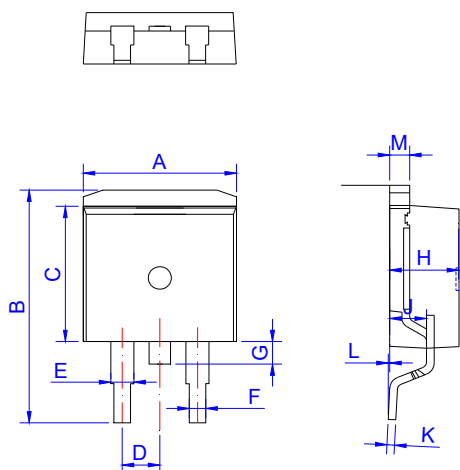
$xH1$ : Month, 1/2/3~9/A/B/C

$3x1$ :

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

$3Hx$ : Batch number

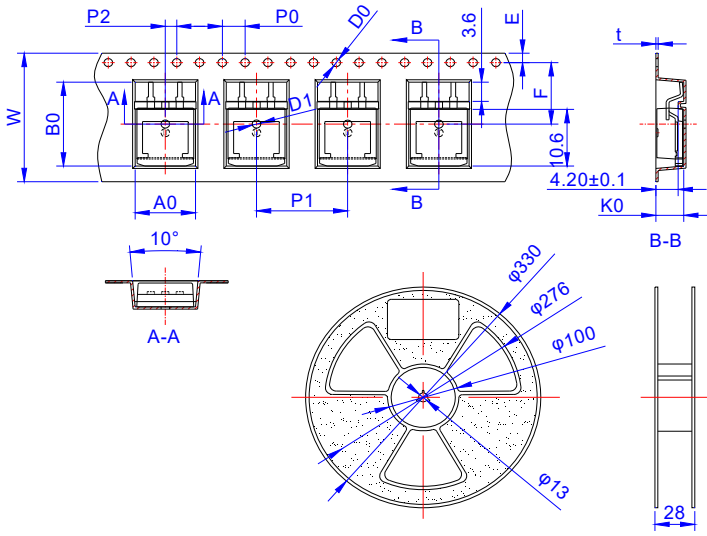
PACKAGE MECHANICAL DATA



TO-263

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	8.80		9.60	0.346		0.378
D		2.54			0.100	
E	1.20		1.40	0.047		0.055
F	0.75		0.85	0.030		0.033
G			1.75			0.069
H	4.40		4.70	0.173		0.185
J	2.30		2.70	0.091		0.106
K	0.38		0.55	0.015		0.022
L	0	0.10	0.25	0	0.004	0.010
M	1.17		1.37	0.046		0.054

TAPE AND REEL SPECIFICATION-TO-263

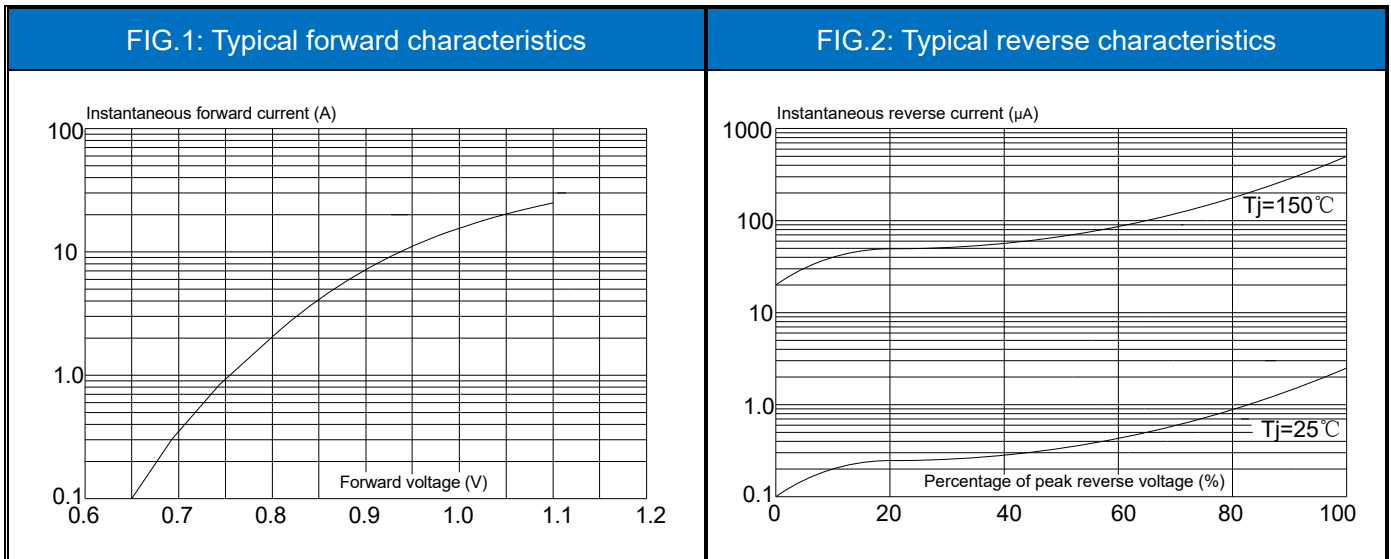


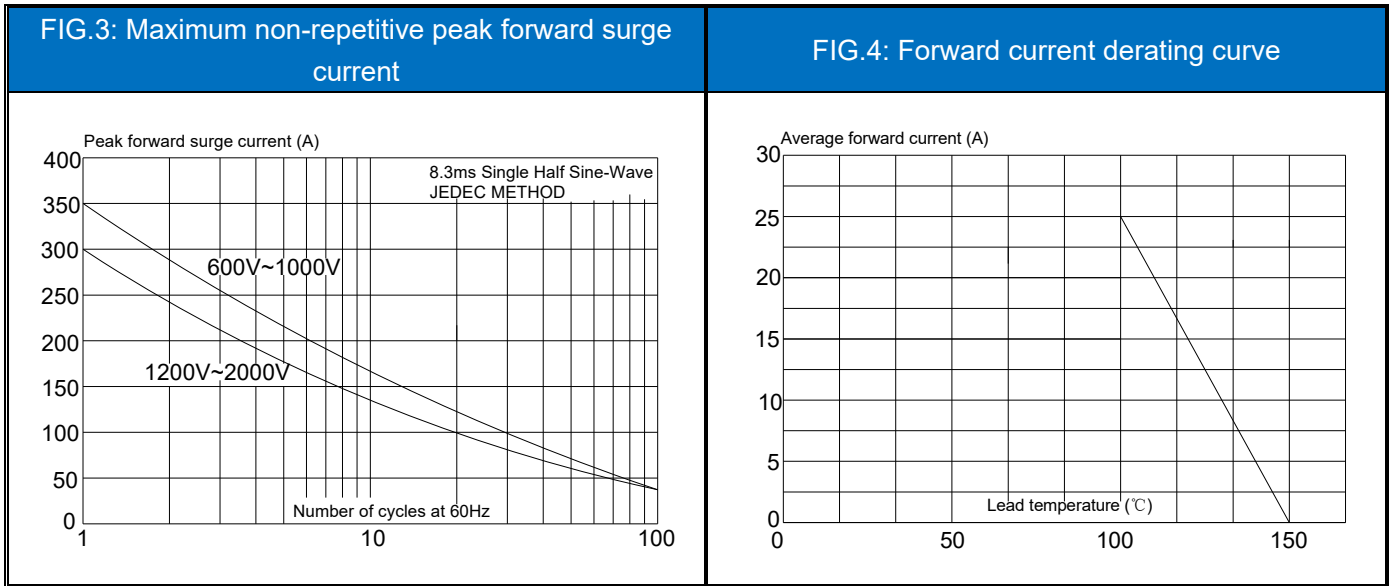
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	23.70	24.00	24.30	0.933	0.945	0.957
E	1.65	1.75	1.85	0.065	0.069	0.073
F	11.40	11.50	11.60	0.449	0.453	0.457
D0	-	1.50	1.60	-	0.059	0.063
D1	-	1.50	1.60	-	0.059	0.063
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	15.90	16.00	16.10	0.626	0.630	0.634
P2	1.90	2.00	2.10	0.075	0.079	0.083
A0	10.80	10.90	11.00	0.425	0.429	0.433
B0	16.20	16.30	16.40	0.638	0.642	0.646
K0	4.80	4.90	5.00	0.189	0.193	0.197
t	0.35	0.40	0.45	0.014	0.016	0.018

PACKAGE INFORMATION-TO-263

PART No.	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
GP2506E~GP2520E	1.514	50	5,000
PART No.	UNIT WEIGHT (g/PCS) TYP	REEL (PCS)	PER CARTON (PCS)
GP2506E-R~GP2520E-R	1.514	800	4,000

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